SECTION 11131

PROJECTION SCREENS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Front projection screen assemblies.

1.02 RELATED REQUIREMENTS

A. Section 09511 - Suspended Acoustical Ceilings: Suspended panel ceilings for recessed screens.

B. Section 09900 - Paints and Coatings: Field painting.

C. Section 16155 - Equipment Wiring: Electrical supply, conduit, and wiring for electric motor operated projection screens.

1.03 SUBMITTALS

A. See Section 01300 - Administrative Requirements, for submittal procedures.

B. Product Data: Manufacturer's catalog cuts and descriptive information on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.
   4. Wiring diagrams for motor operators and actuators, and controls and switches.

C. Samples: For screen fabrics, submit three 4 by in size.

D. Samples: For case and frame finishes, submit three 2 by in size, illustrating color and texture of finish.

E. Operation and Maintenance Data: Provide manufacturer's operation and maintenance instructions.

F. Warranty: Submit manufacturer warranty and ensure that forms have been completed in VCCS's name and registered with manufacturer.

1.04 QUALITY ASSURANCE

A. Manufacturer Qualifications: Experienced in manufacturing products specified in this section.

B. Installer Qualifications: Experienced in installation of the work of this section.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver projection screens to project site in manufacturer's original unopened packaging. Inspect for damage and size before accepting delivery.

B. Store in a protected, clean, dry area with temperature maintained above 50 degrees F. Stack according to manufacturer's recommendations.

C. Acclimate screens to building temperatures for 24 hours prior to installation, or in accordance with manufacturer's recommendations.

1.06 FIELD CONDITIONS

A. Maintain interior of building between 60 degrees F and 75 degrees F during and after installation of projection screens.

1.07 WARRANTY

A. See Section 01780 - Closeout Submittals, for additional warranty requirements.

B. Provide 5 year manufacturer warranty for projection screen assembly.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Bretford: www.bretford.com.

B. Da-Lite Screen Company: www.da-lite.com.

C. Draper, Inc: www.draperinc.com.

D. Stewart Filmscreen Corporation: www.stewartfilmscreen.com.

2.02 FRONT PROJECTION SCREENS

A. **General: Projection Screen Units are to be tested per NFPA 701.**

B. Manufacturers:
1. Bretford: www.bretford.com.
2. Da-Lite Screen Company: www.da-lite.com.
3. Draper, Inc: www.draperinc.com.

C. Front Projection Screens: Factory assembled unless otherwise indicated.
1. In Classrooms: Motorized, matte light diffusing fabric screen, horizontally tensioned , ceiling recessed.
   a. Screen Dimensions: 96 inches by 96 inches.

D. Matte Light Diffusing Fabric: Light diffusing screen fabric; washable, flame retardant and mildew resistant.
1. Material: Matte white vinyl on fiberglass backing, with nominal gain of 1.0 over viewing angle not less than 70 degrees from axis, horizontally and vertically.
2. Seams: No seams permitted in fabric up to 96 inches high by 96 inches wide.

E. Masking Borders: White, four sides.

F. Concealed-in-Ceiling Screen Cases: Steel; integral roller brackets.
1. Door Slat: Self trim; self-closing and -opening.
2. Case Finish: Baked enamel.
3. Case Color: White.
4. End Caps: Steel; finished to match case.
5. Electrically-Operated Screens: 1-1/2 inch aluminum door roller.

G. Electrically-Operated Screens:
1. Roller: 2 inch aluminum, with locking device.
2. Vertical Tensioning: Screen fabric weighted at bottom with steel bar with plastic end caps.
3. Horizontal Tensioning: Tab-guided cable system.

H. Provide mounting hardware, brackets, supports, fasteners, and other mounting accessories required for a complete installation, in accordance with manufacturer's recommendations for specified substrates and mountings.

2.03 ELECTRICAL COMPONENTS

A. Electrical Components: Listed and classified by UL as suitable for the purpose specified and indicated.

B. Motors: Direct drive, 110 V, 60 Hz.
1. Screen Motor: Mounted inside roller; three wire with ground; quick reverse type; equipped with thermal overload cut-off.

a. Electrical Characteristics: 1.2 amps.
b. Motor mounted on sound absorber.

2. Door and Adjustable Masking Motor: Mounted inside roller; three wire with ground; quick reverse type; equipped with thermal overload cut-off.
   a. Electrical Characteristics: 1.2 amps.

C. Controls: 3 position control switch with plate.
   1. Provide 1 control station to screen.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that substrate is finished and ready to accept screen installation.

B. If substrate preparation is the responsibility of another installer, notify nbj Architecture of unsatisfactory preparation before proceeding.

C. Verify that openings for recessed screens are correctly sized.

D. Verify type and location of electrical connections.

E. Do not install projection screens until climate control systems are in place and interior painting and other finishes are completed.

3.02 PREPARATION

A. Coordinate screen installation with installation of projection systems.

B. Coordinate installation with adjacent construction and fixtures, including ceilings, walls, lighting, fire suppression, and registers and grilles.

3.03 INSTALLATION

A. Install in accordance with manufacturer's instructions, using manufacturer's recommended hardware for relevant substrates.

B. Do not field cut screens.

C. Install screens in mountings as specified and as indicated on drawings.

D. Install plumb and level.

E. Install electrically operated screens ready for connection to power and control systems by others.

F. Adjust projection screens and related hardware in accordance with manufacturer's instructions for proper placement and operation.

G. Test electrical screens for proper working condition. Adjust as needed.

3.04 PROTECTION

A. Protect installed products until completion of project.

B. Touch up, repair, or replace damaged products before Substantial Completion.

END OF SECTION